

Data and Com Officers: Re-evaluating the Current 0602 MOS

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As the Marine Corps becomes more dependant on data systems to provide command and control for its operating forces as well as its supporting establishment, the responsibility to provide this type of connectivity has fallen on one individual, the communications officer. As technology expands and increases capabilities, the communications officer must adapt these technologies while maintaining proficiency in existing command and control platforms. This is too much for one population of Marine Corps Officer to handle.

#### **HISTORICAL BACKGROUND**

During most of the twentieth century, the technology of choice for command and control on the battlefield was the field radio. In World War II, Korea, Vietnam, and Desert Storm, radio waves carried the orders and messages from the commander to the commanded. Tactical telephone and telephone switching was developed and perfected in the later half of that century and added to the commander's ability to command and control. The responsibility for planning, installing, maintaining, and operating these systems were the responsibility of the communications officer and the

communications Marines that fell under the "CommO," in both the field and garrison environments.

The first computers were fielded in the Marine Corps in the early 1980's. The large mainframe computers of that time were located mostly at higher headquarters and required specially trained officers and Marines to manage these "data systems."<sup>1</sup> As the world became more dependant on computers and data networks, the Marine Corps was no exception. Given the complexity of current and emerging command and control (C2) systems, the sheer number and speed of technological advances applicable to warfighting were endless.

#### **CHANGING THE SYSTEM**

In January of 1993, All Marine Message 049/93 (ALMAR) announced the S-6 concept. This concept expanded the duties of a unit's resident communications officer (2502) to include communications security and automated data processing (ADP). The intent of the ALMAR was to formalize a billet that would provide the commander with a single point of contact for all automated information and communications support. As a result, the Communications Officer School increased the amount of data communications training received by 2502's in order to prepare these

officers to be battalion S-6's. Also during this time, the Marine Corps began migrating from main-frame processing to personal computer (PC) based information systems. This migration reduced the requirement for Marine personnel to support main frame computer operations.<sup>2</sup> This decentralization of information systems required individuals at every level to understand not only the basics of the data systems they were using, but more importantly, how to integrate those systems with the existing communications architecture. This is where the distinction between the communications officer (2502) and the data systems officer (4002) began to blur.

In May of 1994, the commanding generals from the 1<sup>st</sup> Marine Division and the 3d Marine Corps Airwing released a joint message stating that data systems officers and communications officers were increasingly being required to be experts in both areas and that the Marine Corps should expedite the merging of these MOS's. Based on this message and the supporting requests of the operating forces, C4I, Command, Control, Communications, Computers, and Intelligence, took the lead and in March of 1995, the merger concept was briefed to the Command and Control Working Group which was comprised of senior staff officers from operating forces. It was decided that the two MOS's needed to be

merged at the entry level (second Lieutenant) to ensure that the officers who were to be the sole communications and data experts within a unit have the appropriate training. The Director, C4I, then briefed the merger to the Assistant Commandant of the Marine Corps Committee in May 1995, where it was positively endorsed. A Subject Matter Expert Conference, attended by representatives from the operating forces and the supporting establishment convened to define tasks and training standards appropriate for the merged MOS.<sup>3</sup>

The G-6/S-6 concept was the first step in an evolutionary process to improve command and control capabilities. The merger was the next step taken to develop officers who were fully capable of functioning successfully in an environment in which the traditional boundaries between data and communications systems no longer existed.<sup>4</sup>

In 1996, the Marine Corps combined these two military occupational specialties, (MOS), data systems officer (4002), and communications officer (2502). The resulting MOS became known as communications and information systems officer (0602). This action had a tremendous effect on hundreds of Marine Corps officers as well as on how the Marine Corps conducts its operations.

Paradoxically, the intent of this movement was to simplify things in an increasingly complex combat environment. However, by making things easier, technology also made things more difficult.

### **GROWING PAINS**

This merger not only applied to newly minted second lieutenants graduating from the Basic School, but to all officers possessing those MOS's up to and including the rank of lieutenant colonel. Officers who had been trained in field communications were being placed in data network billets. LtCol Debra Beutel recalls, "I basically bought a book at Borders and taught myself TCP/IP when I was assigned as a 2502 as the Tactical Data Network project officer at Marine Corps Systems Command."<sup>5</sup>

This posed some serious problems, particularly for senior data officers who now had to compete for promotion with communications officers who had been company commanders and battalion and squadron commanders. Those opportunities did not exist for data officers. As a consequence, the Marine Corps lost a great deal of resident knowledge and expertise in the field of data systems through the attrition of these "non-competitive" officers.

## **THE FUTURE OF COMMUNICATIONS**

Success on the modern battlefield depends greatly upon the responsiveness of various C2 systems and their timely interpretation, presentation, and dissemination of critical information to decision makers. Within the past several years, literally hundreds of C2 systems supporting various warfighting functional areas have been fielded. The Advanced Field Artillery Tactical Direction System (AFATDS) was fielded to facilitate fire support. Logistics Automated Information Systems (LOGAIS) was fielded to assist with logistics. Operations relies heavily on the Command and Control Personal Computer (C2PC) suite of programs to conduct its mission. While all of these systems, and many more like them, are specific to a battlefield function, the transmission paths that these systems utilize are provided by communications Marines.

The move towards more commercial off the shelf (COTS) data systems and hardware has given the Marine Corps the look of a large corporation from a C2 standpoint. Every employee bases a great deal of their day around being "on-line." One major difference is that the civilian company does not rely on the same person to provide their computer connectivity, their phone connectivity, and where



applicable, their radio connectivity. Ultimately the Marine Corps turns to one individual for all of these requirements, the 0602 communications officer. It is clear that the 0602 field is too broad for one "jack of all trades" communicator to handle.

### **ALTERNATIVES**

Several alternatives to the current system exist. The Marine Air Ground Task Force Command and Control (MAGTF C2) vision statement states, "MAGTF C2 enhances lethality and effectiveness across the range of military operations through better decision making and shared understanding. It is an intuitive and holistic environment of people, processes, and technology that enables network-centric operations throughout the enterprise, and empowers the innate initiative of warfighters at all levels in the context of the commander's intent."<sup>6</sup> In order to accomplish this vision, the Marine Corps should re-evaluate the need for unrestricted data communications officers. While not advocating a return to the original 4002 MOS, there is a definite need for technical experts in the area of database management, data center operations, and software development. The Naval Postgraduate School in Monterrey,

California offers several advance degrees in the area of data systems to Marine Corps officers who in-turn serve one tour in a billet relating to their course of study. Once that tour is completed, usually after three years, that officer is no longer obligated or expected to serve in any data related billet. Once again, career progression becomes an issue in that there are no command billets for data officers and no incentive to serve more than the "pay-back" tour. There may be a potential solution to enhancing the Marine Corps pool of data knowledge and capabilities if these officers could be utilized in a way that would not negatively affect their career progression.

Another solution might lie at the introductory training level. Lieutenants entering the communications MOS could be designated as either data officers, (0640's) or as transmission officers (0625's) and trained and assigned to the operating forces appropriately. Once they are promoted to captain, they would be expected to attend a career level course designed to train them as MAGTF C2 planners, incorporating their primary MOS and supplementing the other with the result being the 0602 MOS designator. The current occupational field expansion course at Expeditionary Warfare School (EWS) could be tailored to provide this training not

only to EWS students but also to officers from the fleet who do not attend the resident EWS program. This type of progression would also shorten the initial accession training that 0602's currently take six months to complete.<sup>7</sup>

## **CONCLUSION**

The movement of the Marine Corps to the use of more and more data systems in the operational environment made the merger of the 4002 and 2502 MOS's a logical move at the time it was undertaken. However, the long term results have been mixed as to whether it was done correctly. It is in the Marine Corps' best interest to reevaluate the current 0602 MOS to support the MAGTF C2 vision better and to ensure success on the digital battlefield.

## Notes

1. Anonymous (1996, JUL) Comm-data Systems Merger: A Sign of the Times. *Marine Corps Gazette*, 80, 48.

2. Anonymous, 48.

3. Anonymous, 48.

4. All Marine Message. Commandant of the Marine Corps. Subject: "Positioning the Marine Corps for the Information Age- Merger of MOS 2502 and 4002," 260032Z JUL 96

5. Questionnaire respondent, LtCol Debra Beutel, "MOS 4002 and 2502 Merger," questionnaire conducted by the author, November 2005, question 2.

6. MAGTF C2 Vision Statement, C2 Integration Division, Marine Corps Combat Development Command, October 2005.

7. Questionnaire respondent, Maj Herbert Schweiter, Question 5.

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Anonymous, "Comm-Data Systems Merger: A Sign of the Times," *Marine Corps Gazette* 80 (1996): 48.

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Marine Corps Combat Development Command, Office of C2 Integration, MAGTF C2 Vision Version 1.3. 18 October 2005.

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